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=> d his

     (FILE 'HOME' ENTERED AT 06:23:37 ON 14 JUN 2001)
     FILE 'REGISTRY' ENTERED AT 06:23:46 ON 14 JUN 2001
               E RUTHENIUM TETRAOXIDE/CN
L1          1 S E3
               SEL NAME L1
     FILE 'CA' ENTERED AT 06:25:51 ON 14 JUN 2001
L2       1486 S L1 OR E1-6 OR RUO4
               E BLALOCK G/AU
L3         29 S E3-6
L4          0 S L2 AND L3
L5          0 S L3 AND (RUTHEN? OR RU)
     FILE 'REGISTRY' ENTERED AT 06:30:48 ON 14 JUN 2001
               E POLYPROPYLENE/CN
L6          1 S E3
     FILE 'CA' ENTERED AT 06:36:04 ON 14 JUN 2001
L7 213790 S (CONDUCTIVITY OR RESISTIVITY OR RESISTANCE OR
               CONDUCTANCE)(5A)(CHANGE OR INCREASE OR DETECT? OR DETERMIN? OR MEASUR?
               OR MONITOR? OR ANALY? OR ASSAY? OR TEST? OR QUANTIF? OR ESTIMAT? OR
               EVALUAT? OR SENSE# OR SENSING OR PROBE# OR PROBING)
L8   17020 S (L6 OR (PROPYLENE OR PROPENE)(2A)(POLYMER OR HOMOPOLYMER OR POLY)OR
               POLYPROPYLENE OR POLYPROPENE)(4A)(FILM OR SUBSTRATE OR SUPPORT)
L9        139 S L8 (10A)ELECTRODE
L10 56425 S (GLASS OR SO2 OR SILICON DIOXIDE OR QUARTZ)(4A)(FILM OR SUBSTRATE OR
               SUPPORT)
L11      2219 S L10 (10A)ELECTRODE
L12        98 S L2(5A)(DETECT? OR DETERMIN? OR MEASUR? OR MONITOR? OR ANALY? OR
               ASSAY? OR TEST? OR QUANTIF? OR ESTIMAT? OR EVALUAT? OR SENSE# OR
               SENSING OR PROBE# OR PROBING)
L13         0 S L9,L11 AND L12
L14         0 S L12 AND(CONDUCTIVITY OR RESISTIVITY OR RESISTANCE OR CONDUCTANCE)
L15       178 S L9,L11 AND (DETECTOR OR SENSOR OR(SENSING OR DETECTING OR
               DETECTION)(2A)(DEVICE OR ELEMENT OR APPARATUS))
L16        28 S L15 AND(CONDUCTIVITY OR RESISTIVITY OR RESISTANCE OR CONDUCTANCE)
L17      5376 S ((METAL? OR RUTHENIUM OR IRIDIUM OR RHODIUM)(4A)(VAPOR? OR GAS? OR
               VOLATILE))(5A)(DETECT? OR DETERMIN? OR MEASUR? OR MONITOR? OR ANALY?
               OR ASSAY? OR TEST? OR QUANTIF? OR ESTIMAT? OR EVALUAT? OR SENSE# OR
               SENSING OR PROBE# OR PROBING)
L18       326 S L17 AND L7
L19         4 S L8,L10 AND L18
L20        62 S L9,L11 AND L7
L21 22495 S (NONCONDUCT? OR INSULATING OR NON CONDUCT?)(4A)(FILM OR SUBSTRATE OR
               SUPPORT)
L22      3758 S L21 (10A)ELECTRODE
L23        70 S L7 AND L22
L24        41 S L21 AND L17
L25       288 S L12,L16,L19-20,L23-24
L26       272 S L25 NOT PY>1999

=> d l26 bib,ab 1-272

L26  ANSWER 12 OF 272  CA  COPYRIGHT 2001 ACS
AN   130:261240  CA
TI   Sensor for detecting organic solvent gases and basic gases
IN   Kita, Junichi; Okubo, Kunihiko; Yoshii, Mitsuyoshi; Aoyama, Yoshihiro;
     Kuyama, Hiroki; Yoshino, Katsumi
PA   Shimadzu Corp., Japan
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SO Jpn. Kokai Tokkyo Koho, 6 pp.
PI JP 11094784 A2 19990409 JP 1997-275313 19970922
AB The title sensor comprises a gas-sensing film which is made from a mixt. contg. elec. conductive microparticles (e.g., carbon black) and a low-cond. conductive polymer (e.g., polythiophenes) doped by a small amt. of a dopant. The sensing film is formed between the pair of electrodes on an insulating substrate, in which changes in the resistivity of the sensing film are monitored as a gas to be detected deposits on the sensing film.

L26 ANSWER 31 OF 272 CA COPYRIGHT 2001 ACS
AN 127:155890 CA
TI The influence of the electrodeposition parameters on the morphology of organo-transition metal complexes for thin film gas sensor applications
AU Bates, J. R.; Kathirgamanathan, P.; Miles, R. W.
CS Department of Electrical and Electronic Engineering and Physics, University of Northumbria, Newcastle upon Tyne, NE1 8ST, UK
SO Thin Solid Films (1997), 299(1-2), 18-24
AB The electrodeposition of tetrabutylammonium bis(1,3-dithiol-2-thione-4,5-dithiolate) nickelate (Bu4NNi(dmit)2) onto platinum, gold interdigitated, and fluoride-doped SnO2 electrodes. The effects of adding pyrrole, thiophene, 3-methylthiophene, and furan to the deposition soln. on the film morphol. were investigated. The bulk cond. of the deposited films was 4 × 10-2 S/cm irresp. of the heterocycle added. Cyclic voltammetry was carried out using the three electrodes: the gold and platinum electrodes showed similar electrochem. behavior, with the peaks assigned to the redox properties of the metal-dmit; the SnO2 electrode did not yield any distinct peaks. This was attributed to the observation that the rate of electron transfer to the SnO2 electrode was the rate-limiting step rather than the rate of diffusion to the electrode surface as in the case of the platinum and gold electrodes. The films deposited onto the interdigitated gold electrodes were exposed to SO2, and changes in the film resistance were monitored. Films deposited in CH2Cl2 had a much lower surface area than those deposited from nitrobenzene, and the magnitude of the change in resistance on exposure to SO2 was a factor of four lower than for the films deposited in nitrobenzene. Studies were also carried out on copper and cobalt dmit analogs; the copper-dmit behaved in a similar manner to the nickel-dmit, although the films were of very low cond., whereas the cobalt-dmit showed no reversible redox behavior.

L26 ANSWER 60 OF 272 CA COPYRIGHT 2001 ACS
AN 121:174190 CA
TI Thin-film microsystem applicable in (bio)chemical sensors
AU Tvarozek, V.; Ti Tien, H.; Novotny, I.; Hianik, T.; Dlugopolsky, J.; Ziegler, W.; Leitmannova-Ottova, A.; Jakabovic, J.; Rehacek, V.; et al.
CS Department of Microelectronics, Slovak Technical University, Ilkovicova 3, Bratislava, 812 19, Czech.
SO Sens. Actuators, B (1994), 19(1-3), 597-602 CODEN: SABCEB; ISSN: 0925-4005
AB A strip thin-film microsystem based on the silicon diaphragm or glass substrate, thin-film heater and planar interdigital array of electrodes has been developed. The used thin-film and silicon micromachining technologies are compatible with microelectronics IC technologies which allow a further development towards smart sensors. Description of some possible applications of thin-film microsystem is presented: (i) gas-resistance sensor; (ii) electrochem. voltammetric sensor, and (iii) biosensor based on the supported bilayer lipid membranes. The last one is presented in more details because the lipid bilayers seem to be the attractive candidates for biosensors applications.

L26 ANSWER 65 OF 272 CA COPYRIGHT 2001 ACS
AN 120:249133 CA
TI A sensor for monitoring water and acid in the presence of water in nonaqueous media
IN Yamagishi, Frederick G.; Van Ast, Camille I.; Miller, Leroy J.
PA Hughes Aircraft Co., USA
SO Eur. Pat. Appl., 15 pp.
PI EP 584557 A1 19940302 EP 1993-111976 19930728
US 5331287 A 19940719 US 1992-922899 19920731
PRAI US 1992-922899 19920731
AB A system for monitoring the quality of nonaq. fluids (e.g., engine oil) in equipment or vehicles includes a sensor comprising an insulating substrate; electrodes formed on the substrate in an interdigitated pattern; and a conductive polymer (e.g., polyaniline) deposited over the interdigitated electrodes which bridges between adjacent digits of the electrodes. The conductive polymer reversibly increases cond. in measurable amts. with increasing acid and/or water content due to protonation by the acid or hydration by the water.

L26 ANSWER 94 OF 272 CA COPYRIGHT 2001 ACS
AN 117:122195 CA
TI Effect of iodine on electrical conduction in cellulose acetate-butyrate polymer films
AU Reddy, N. Venugopal; Rao, V. V. R. Narasimha
CS Coll. Eng., Sri Venkateswara Univ., Tirupati, 517 502, India
SO J. Mater. Sci. Lett. (1992), 11(15), 1036-8 CODEN: JMSLD5; ISSN: 0261-8028
AB Pure and I-doped cellulose acetate-butyrate films of thickness 5 μm were grown by isothermal immersion of glass substrates coated with metal electrodes. The cond. increase with temp. consists of two distinct regions of conduction. The cond. increases with with increasing concn. of I up to 0.5 wt.%. Above this concn., however, the cond. decreases continuously with increasing I concn. The cond. in the doped sample is always more than that in the pure sample, even at higher concn. The increase in the activation energy at higher concn. can be explained as being due to the formation of mol. aggregates of the I. The charge carriers become more localized.

L26 ANSWER 105 OF 272 CA COPYRIGHT 2001 ACS
AN 115:173734 CA
TI Ruthenium sensor with an oscillator
IN Arai, Yuko; Honda, Taku
PA Hitachi, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
PI JP 03048748 A2 19910301 JP 1989-183790 19890718
AB The Ru sensor, esp. useful in nuclear fuel reprocessing plants, comprises an oscillator equipped with electrodes and org. films on an electrode. The shift in resonance frequency of the oscillator is detd., as RuO_4 is reduced to RuO_2 and deposited, causing a wt. increase on the org. film.

L26 ANSWER 111 OF 272 CA COPYRIGHT 2001 ACS
AN 114:177561 CA
TI Quartz-oscillator sensor for determination of ruthenium oxide (RuO_4)
IN Arai, Yuko; Honda, Taku
PA Hitachi, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
PI JP 02293644 A2 19901204 JP 1989-113737 19890508
AB The title sensor, having high sensitivity and an in situ capability, comprises an org. film (e.g., polyethylene and rubber) on an electrode of a

quartz oscillator, where redn. of RuO4 and subsequent RuO2 deposition (i.e., causing a wt. increase) on the org. film surface is measured as a change in the resonance frequency of the oscillator to det. RuO4.

L26 ANSWER 112 OF 272 CA COPYRIGHT 2001 ACS
AN 114:177546 CA
TI Sensor with hollow cylindrical metal-ring electrodes
IN Schmidt, Karl Heinz
PA Siemens A.-G., Fed. Rep. Ger.
SO Eur. Pat. Appl., 3 pp.
PI EP 386660 A1 19900912 EP 1990-104132 19900302
PRAI DE 1989-8902974 19890310
AB In the face of a cylindrical support body made of insulating material, 4 concentric metal rings are attached as electrodes for a cond. sensor, which are sealed flat with the face. The sensor allows insertion into piping or a container flush with the interior surface of the wall. The electrodes are formed as hollow cylindrical metal rings of a low overall height which are positioned coaxially to the centerline of the support body, allowing the face of the sensor to be concave and to accommodate the curve of the wall surface of the container.

L26 ANSWER 130 OF 272 CA COPYRIGHT 2001 ACS
AN 111:222878 CA
TI Gas-sensitive silver ion conduction in semiconducting zinc oxide thin films
AU Takayama, H.; Fujitsu, S.; Vanagida, H.
CS Fac. Eng., Univ. Tokyo, Tokyo, 113, Japan
SO Solid State Ionics (1989), 35(3-4), 411-15
AB A new type of reducing gas sensing system is developed based on changes in ionic cond. Though it is well known that the resistivity of n-type semiconductors such as ZnO decreases on the introduction of reducing gases, that of thin films sputtered on silica glasses in the present study (which had Ag electrodes) increased with the introduction of reducing gases. This abnormal property is due to the change in the ionic resistance of Ag+ incorporated from the electrode.

L26 ANSWER 137 OF 272 CA COPYRIGHT 2001 ACS
AN 109:196376 CA
TI Method and apparatus for simultaneous detection of target gases in ambient air
IN Grace, Richard; Portnoff, Marc A.; Guzman, Alberto M.; Runco, Paul D.; Yannopoulos, Lympenios N.
PA American Intell-Sensors Corp., USA
SO Eur. Pat. Appl., 13 pp.
PI EP 280540 A2 19880831 EP 1988-301598 19880224
US 4911892 A 19900327 US 1987-17838 19870224
PRAI US 1987-17838 19870224
AB Thick film gas sensors suitable for detection of CO and CH4 in air comprise an elec. insulating substrate, a pair of electrodes positioned on the substrate, a gas sensing film positioned on the substrate in contact with the electrodes, means to secure the film to the substrate, means for heating the film, and filter means for decreasing other gas interference by combustion of such gases. The gas sensing film includes a 1st metal oxide gas sensing layer and a 2nd conductive catalyst layer (Sn oxide) for combustion of interfering gases. The catalysts can be Pt, Pd, or Au.

L26 ANSWER 163 OF 272 CA COPYRIGHT 2001 ACS
AN 103:200278 CA
TI Semiconductor oxide gas combustibles sensor

IN Yannopoulos, Lymperios Nicholas
PA Westinghouse Electric Corp., USA
SO Brit. UK Pat. Appl., 14 pp.

PI	GB 2151796	A1	19850724	GB 1984-32173	19841220
	US 4587104	A	19860506	US 1983-564051	19831221
PRAI	US 1983-564051		19831221		

AB A semiconductor oxide thick film sensor for monitoring gas compns. esp. CO and H concn., based on changes in elec. resistivity compromise a nonconducting substrate, a pair of sepd. electrodes on the substrate, a thick film $Bi_2O_3.3MoO_3$ element in intimate contact with 1 surface of the substrate and in intimate contact with the electrodes, a film heater with predetd. heating range in intimate contact with the other side of the substrate from the thick film element, and a circuit for monitoring the change in resistivity of the thick film element in response to fuel and O constituent reactions at the surface of the thick film element as an indication of the fuel constituent of the gas compn. contacting the thick film element. Thus, $Bi_2O_3.3MoO_3$ powder was mixed with β-terpineol to form a paste and applied to a non-conductive substrate to form a semiconductor oxide thick film, predried to ≤100°, then slowly heated to less than the eutectic, preferably ~550°, and sintered 2 h. The thick film bridged 2 sep. electrodes and a film heater was secured to the substrates on the opposite side. In tests with O-N mixts. contg. CO or H and sometimes water vapor, typical of CH_4-burning boiler atms., the $Bi_2O_3.3MoO_3$ had rapid response to CO (70% resistance change after 30 s contact) and a larger response to H than CO in dry O-N mixts. but enhanced response to CO in the presence of water vapor.

L26 ANSWER 167 OF 272 CA
AN 103:24036 CA
TI Probe for measuring the conductivity of a solution
IN Journet, Gerard
PA Fives-Cail Babcock S. A., Fr.
SO Fr. Demande, 8 pp.
PI FR 2548783 A1 19850111 FR 1983-11385 19830708
AB The title probe, from which deposits can be removed at intervals and useful in sugar refining, consists of an electrode mounted on a support insulating it from the wall of the vessel contg. the soln. whose cond. is to be detd., the edges of the inlet for the probe conforming to the cylindrical surface of the electrode which can rotate in a chamber through which a solvent can be circulated.

L26 ANSWER 177 OF 272 CA
AN 100:9113 CA
TI Moisture-sensitive resistors
IN Murata, Michihiro; Kitao, Shoichi; Okabe, Shinsei
PA Murata Mfg. Co., Ltd. , Japan
SO Ger. Offen., 34 pp.

PI	DE 3311047	A1	19831006	DE 1983-3311047	19830325
	US 4442422	A	19840410	US 1983-477408	19830321
PRAI	JP 1982-54569		19820331		

AB The resistor consists of an insulating substrate, a detector electrode pair, and a 2-layer moisture-sensitive coating covering the electrodes. The coating consists of (1) an inner layer of a macromol. resin contg. a poly(vinyl alc.) copolymer and an electrolyte and (2) an outer layer of a macromol. resin. The moisture absorption ability of the 2nd layer is lower than that of the 1st layer. Optionally, the latter contains a cellulose deriv. The elec. resistivity of the detector decreases with increasing moisture concn. in the surrounding gas. The nature of the decrease depends

on the coating and electrolyte compns. Thus, an alumina substrate provided with 2 Au detector electrodes was covered with (1) an inner layer of acrylic-modified poly(vinyl alc.) and Na acetate electrolyte and (2) an outer layer of Et cellulose.

L26 ANSWER 213 OF 272 CA COPYRIGHT 2001 ACS
AN 83:141358 CA
TI Voltammetry of ruthenate. Determination of ruthenium from ruthenate electroreduction
AU Bardin, M. B.; Nguyen Phuoc Thanh
CS V. I. Lenin Kishinev State Univ., Kishinev, USSR
SO Zh. Anal. Khim. (1975), 30(4), 765-9
AB Ru can be detd. quant. from the 1st wave of Ru redn. in a >8N NaOH medium, where the current is fully limited by diffusion. The diffusion current is directly proportional to ruthenate concn. in the range 1 X 10-4-10-3M. O dissolved in the electrolyte and 8-fold excess of Pd(II), 4-fold Rh(III), and 6-fold Ir(IV) do not interfere; Pt(IV) and OS(VIII) do. The method of preliminary sepn. of Ru as RuO4 does not affect the 1st wave parameters. The electrochem. redn. of RuO4 can be used for the inverse voltammetric detn. of RuO4 after prior accumulating of the ppt. RuO2.xH2O on the electrode surface.

L26 ANSWER 224 OF 272 CA COPYRIGHT 2001 ACS
AN 78:150402 CA
TI Temperature measurement for forming thin films on substrates by vacuum vapor deposition
IN Hacman, Dionys
PA Balzers Hochvakuum G.m.b.H.
SO Ger., 4 pp.

PI	DE 1771088	B2	19730222	DE 1967-1771088	19680401
	GB 1151482	A	19690507	GB 1968-1151482	19680409
PRAI	CH 1967-5424		19670414		

AB The temp. (100-400°) of glass substrates in the vacuum vapor deposition of metals is controlled by measuring the elec. resistance of a strip of identical deposit-free glass between 2 electrodes. To avoid polarization, the measuring current is a.c. Both warming and reliable temp. control of the substrate lead to better adherence of the deposited metal.

L26 ANSWER 234 OF 272 CA COPYRIGHT 2001 ACS
AN 72:137771 CA
TI Thin-film metal oxide resistors
PA N. V. Philips' Gloeilampenfabrieken
SO Fr., 7 pp.

PI	FR 1576658		19690801
PRAI	NL		19670706

AB Metal oxide films having high resistances (1-500 kilohms/square) are fabri cated by depositing (e.g. by evapn. in a vacuum) a series of metal films (e.g., Nichrome). Each film in the series is oxidized almost completely before deposition of the following one. Both the deposition and the oxidn. of each layer are monitored by measuring the resistance of similar layers deposited onto a nearby glass substrate which has electrodes and leads already attached. For Nichrome films, the substrate temp. is 350°. and deposition of a give n layer is halted when the resistance of the control film has decreased to 200 kilohms/square. The air pressure in the bell jar is then increased to 6 x 10-4 torr and oxidn. proceeds until the resistance of the control stops increasing. The pressure is then reduced, and subsequent layers are added. An alternative method, yielding films of greater uniformity and higher resistivity, involves evapg. the nichrome

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(1-5) x 10-5 torr.  Oxidn. can then occur to some extent while evapn.
proceeds, but is completed only by interrupting evapn. periodically to
allow oxidn. at higher pressures.

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STN INTERNATIONAL LOGOFF AT 07:12:24 ON 14 JUN 2001

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     (FILE 'HOME' ENTERED AT 10:41:48 ON 14 JUN 2001)
     FILE 'CA' ENTERED AT 10:42:13 ON 14 JUN 2001
L1    5959 S (CVD OR(VAPOR? OR GAS?)(2A)DEPOSIT?)(6A)(CONTROL? OR DETECT? OR
                DETERMIN? OR MONITOR? OR MEASUR? OR SENSE# OR SENSOR OR SENSING
                OR ESTIMAT?)
L2     314 S L1 AND(CONDUCT? OR RESIST?)(4A)(DETECT? OR DETERMIN? OR MEASUR? OR
           MONITOR? OR ASSAY? OR TEST? OR QUANTIF? OR ESTIMAT? OR EVALUAT? OR
           SENSE# OR SENSING OR PROBE# OR PROBING)
L3      28 S L2 AND ELECTRODE
L4       3 S L3 AND(FILAMENT OR NON CONTACT OR PLASMA SENSOR)
L5     306 S L1 AND ELECTRODE NOT L3
L6      13 S L5 AND (SITU OR INSITU)
L7       2 S L6 AND (RF OR PARTICLE)
L8      20 S L2 AND CAPACIT?
L9      39 S L5 AND CAPACIT?
L10     10 S L9 AND THICKNESS
L11    123 S L1 AND SHORT?
L12      8 S L11 AND ELECTRODE
L13  10266 S ELECTRODE(2A)(SUPPORT? OR SUBSTRATE)
L14     79 S L1 AND(CONDUCT? OR RESIST?)(4A)(MONITOR? OR METER OR TEST? OR SENSOR
           OR PROBE#)
L15    105 S L13 AND(CONDUCT? OR RESIST?)(4A)(MONITOR? OR METER OR TEST? OR
           SENSOR OR PROBE#)
L16    184 S L14-15
L17     25 S L16 AND(MULTI ELECTRODE OR SITU MONITOR? OR INTERDIG? OR(GLASS OR
           POLYMER OR POLYPROP? OR POLY PROP?)(3A)(SUPPOT? OR SUBSTRATE))
L18     48 S L4,L7,L10,L12,L17
L19     42 S L18 NOT PY>1999

=> d bib,ab 1-42 l19

L19  ANSWER 6 OF 42  CA  COPYRIGHT 2001 ACS
AN   130:230294  CA
TI   Thickness monitoring device used in thin-film deposition apparatus
IN   Kato, Motokatsu; Araki, Kiyoshi
PA   Asahi Optical Co., Ltd., Japan
SO   Jpn. Kokai Tokkyo Koho, 7 pp.
PI   JP 11071673       A2    19990316         JP 1997-233120    19970828
AB   The device has two electrodes, a detector for monitoring capacitance
     between the electrodes, and a calculator to work out the thickness of
     deposition films based on the capacitance.  The thickness of the deposition
     films is elec. detd. accurately by the compact device.

L19  ANSWER 13 OF 42  CA  COPYRIGHT 2001 ACS
AN   128:162414  CA
TI   Volatile organic compound sensors
IN   Yamagishi, Frederick G.; Stanford, Thomas B.; Van Ast, Camille I.; Miller,
     Leroy J.
PA   He Holdings, Inc., USA
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SO   Eur. Pat. Appl., 20 pp.
PI   EP 821228   A1   19980128   EP 1997-112810   19970725
     US 5756879   A   19980526   US 1996-685997   19960725
PRAI US 1996-685997   A   19960725
AB   A sensor for reversibly detecting target volatile material in the gas phase comprises a dielec. substrate having a major surface, a pair of elec. conductive electrodes disposed on said major surface of said substrate, and a conductive polymer covering said pair of elec. conductive electrodes, said conductive polymer doped with appropriate dopants, said dopants present in said conductive polymer in measurable excess of said stoichiometrically required to change said conductive polymer from a neutral state to a charged state to provide requisite cond., said sensor being capable of detecting the presence of said target volatile material at a concn. of ≤500 ppm.

L19 ANSWER 15 OF 42 CA COPYRIGHT 2001 ACS
AN   128:109406 CA
TI   Particle measurement in vacuum tools by in situ particle monitor
AU   Miyashita, Haruzo
CS   Vaccum Component Div., ANELVA Corp., Japan
SO   Aneruba Giho (1996), 2, 67-71 CODEN: ANGIFG; ISSN: 1342-2979
AB   In situ particle monitor is employed to measure particles in various vacuum tools such as a plasma CVD tool, an electron beam evapn. tool, a poly-Si etching tool and a load-lock chamber of a sputtering tool. As a result of these expts., in situ particle monitor is effective in (1) detecting sudden flaking from the walls and the electrodes of a process chamber, (2) detg. the source of particle contamination, (3) optimizing the chamber cleaning cycle, and (4) confirming the particle level after chamber cleaning. Probably in situ particle monitor has advantages, compared with particle per wafer pass (PWP) measurements or the std. method for wafer level particle monitoring. In situ particle monitor enables particle measuring easily which is impossible in PEP measurements. Also the particle counts measured by in situ particle monitor considerably differ from the location where the sensor is installed. This is because that the behavior of particles is closely assocd. with the pressure of environment, particle size, d. and so on. It is, therefore, suggested that the location where the sensor is installed should be to measure actual chamber condition accurately with in situ particle monitor.

L19 ANSWER 31 OF 42 CA COPYRIGHT 2001 ACS
AN   121:13653 CA
TI   electronic sensor for alcohol content of fuels.
IN   Yamagishi, Frederick G.
PA   Hughes Aircraft Co., USA
SO   Eur. Pat. Appl., 6 pp.
PI   EP 597452   A1   19940518   EP 1993-118170   19931110
     US 5337018   A   19940809   US 1992-976074   19921113
PRAI US 1992-976074   19921113
AB   An electronic sensor for measuring the alc. concn. of mixts. comprising liq. hydrocarbons and alc. is characterized by at least two elec. conducting electrodes supported on a substrate and by conducting polymer coating shorting at least two electrodes, the conducting polymer having a resistance that changes as a function of the alc. concn.

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STN INTERNATIONAL LOGOFF AT 11:16:22 ON 14 JUN 2001